



STATE OF MARYLAND

DMMH

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October 29, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:42 **Reporting for the week ending 10/23/10 (MMWR Week #42)**

CURRENT HOMELAND SECURITY THREAT LEVELS

National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

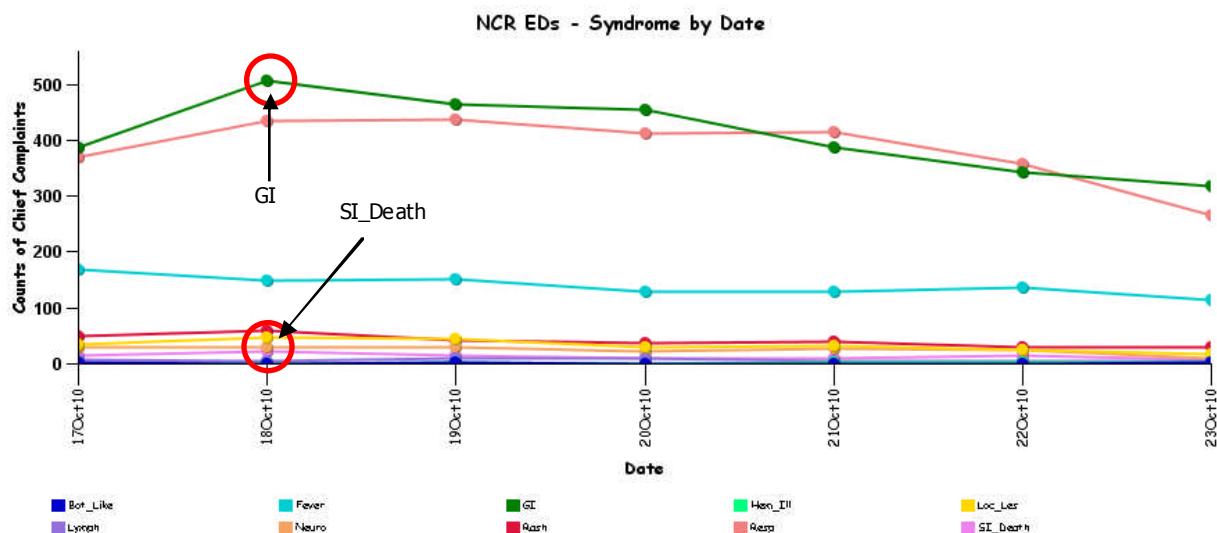
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

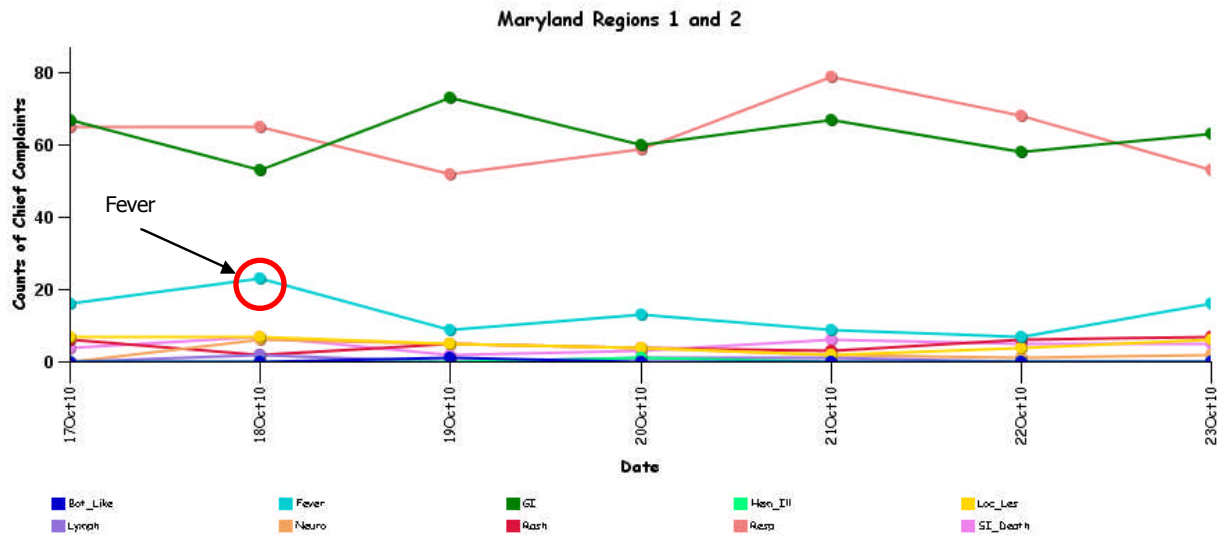
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

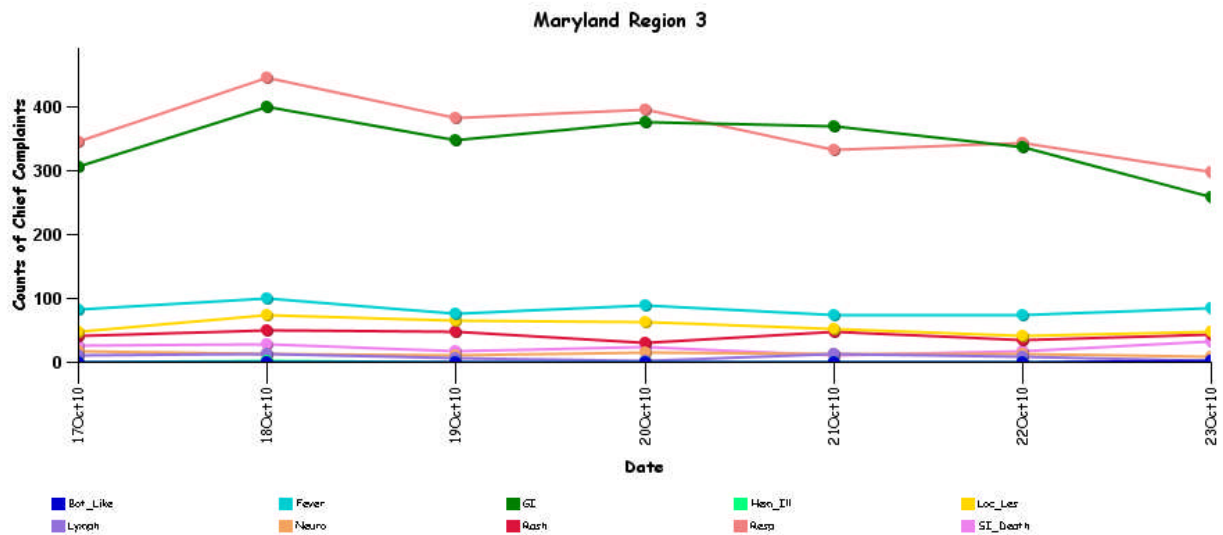
MARYLAND ESSENCE:



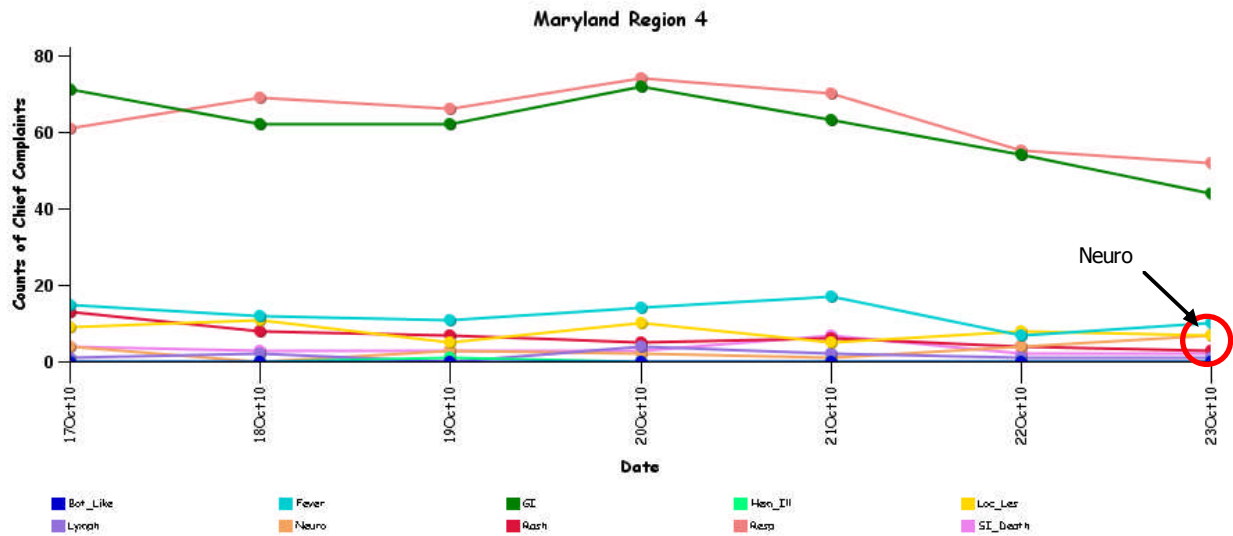
*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE



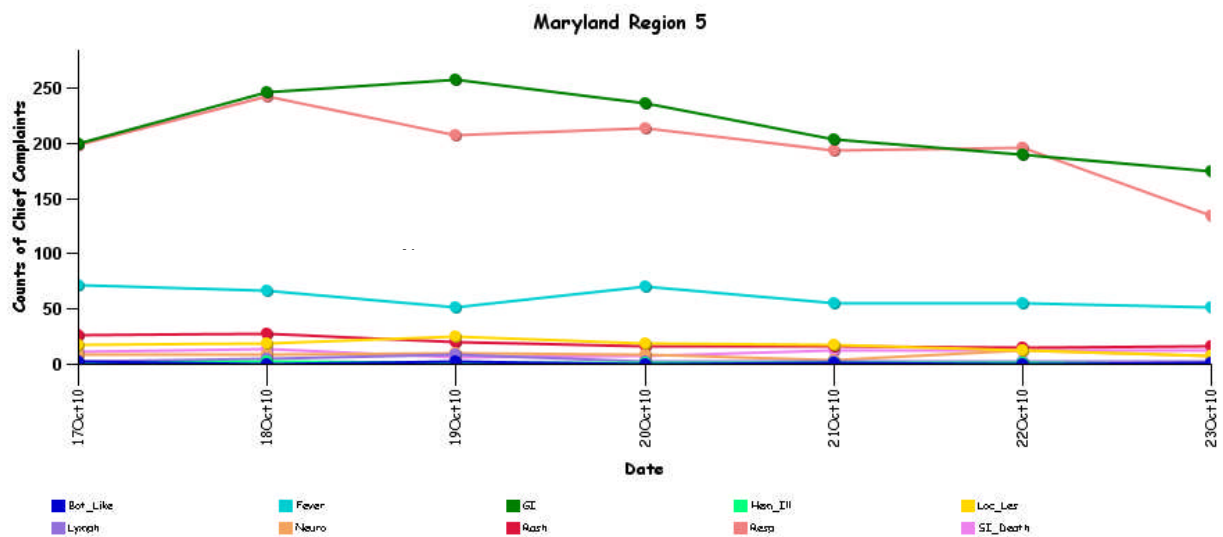
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

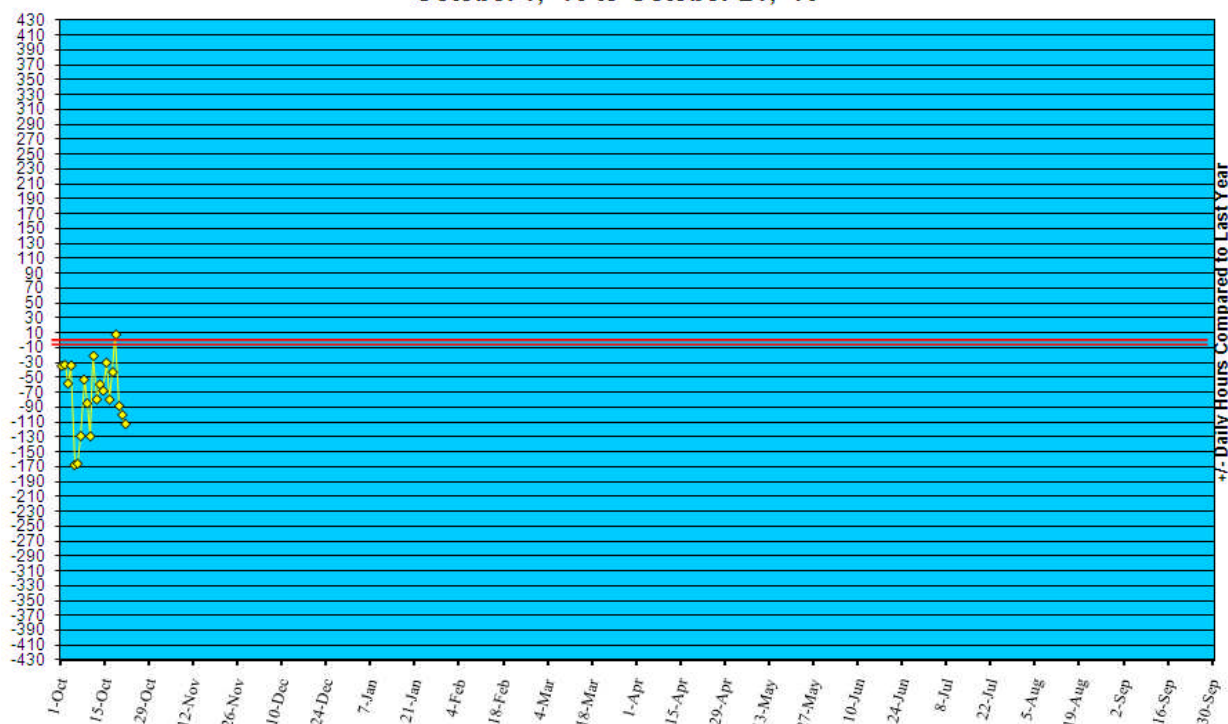


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to October 21, '10



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in September 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (October 17 – October 23):	10	0
Prior cases (October 10– October 16, 2010):	16	0
Week#42, 2009 (October 18 – October 24, 2009):	7	0

3 outbreaks were reported to DHMH during MMWR Week 42 (October 17 – October 23, 2010):

1 Gastroenteritis outbreak

1 outbreak of GASTROENTERITIS in a Hospital

1 Foodborne gastroenteritis outbreak

1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Wake

1 Rash illness outbreak

1 outbreak of HAND, FOOT, AND MOUTH DISEASE in a Daycare

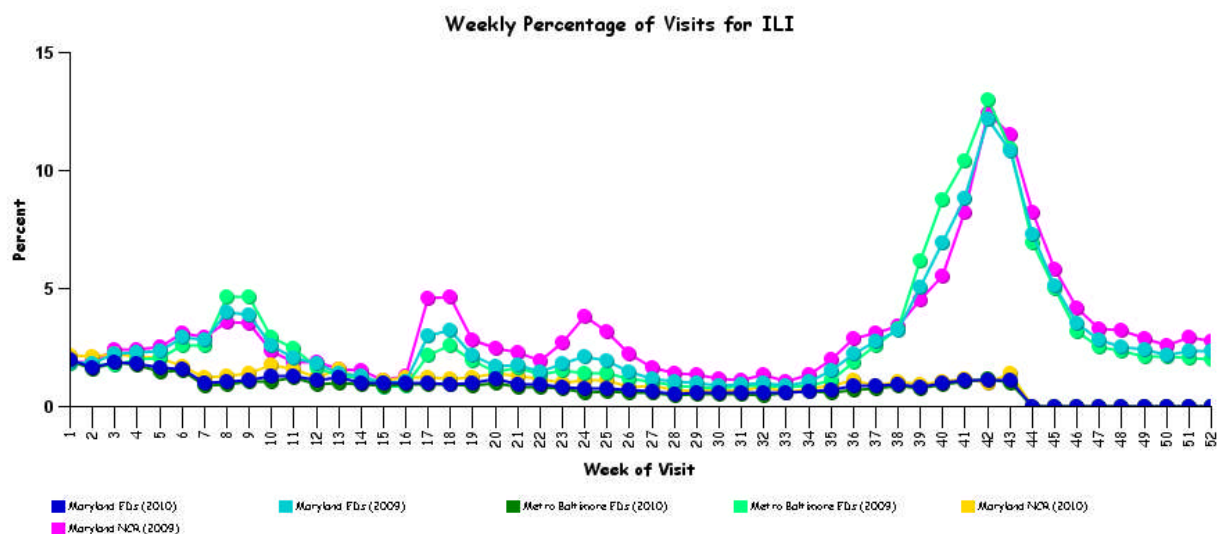
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was sporadic for Week 42.

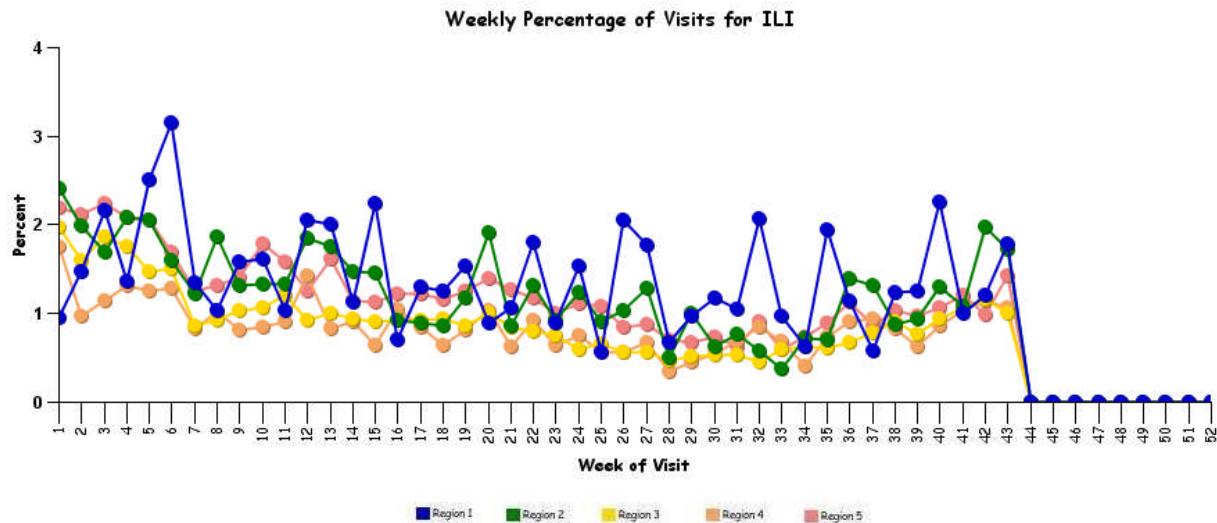
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



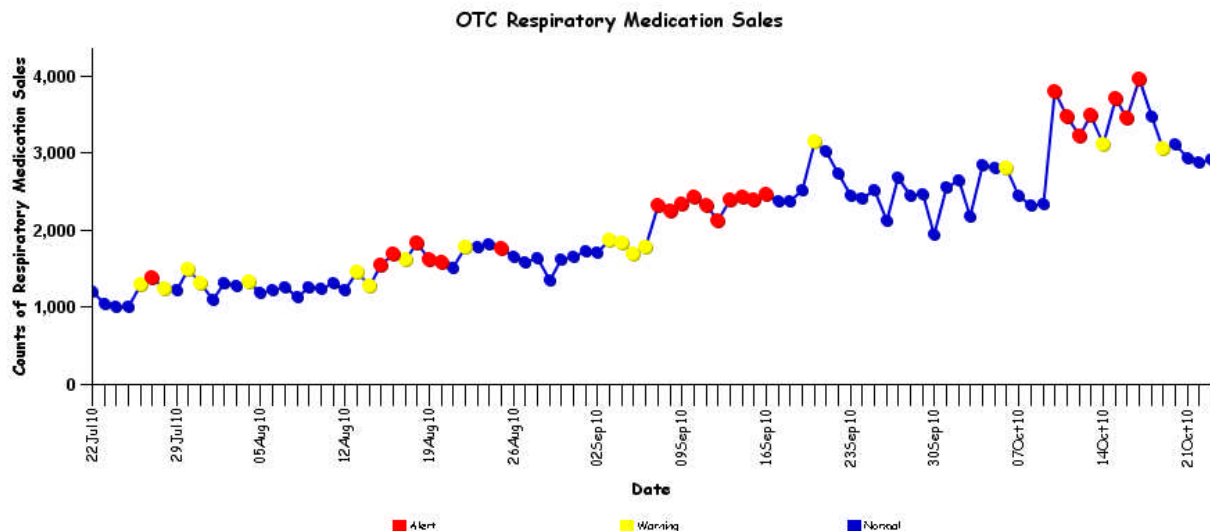
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person

and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of October 18, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 507, of which 302 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

AVIAN INFLUENZA, HUMAN (INDONESIA): 18 Oct 2010, The Ministry of Health of Indonesia has announced 2 new cases of human infection of H5N1 avian influenza. A 35-year-old male from West Jakarta, Jakarta Province developed symptoms on 16 Aug 2010, was hospitalized on 20 Aug 2010, and died on 27 Aug 2010. Initial investigations into the source of his infection suggest a number of sudden chicken deaths occurred around the case's house a week before onset. The 2nd case, a 40-year-old female from Kota Depok, West Java Province developed symptoms on 9 Sep 2010, was hospitalized on 12 Sep 2010, and died on 17 Sep 2010. Initial investigations into the source of her infection suggest exposure at a live bird market. For both cases, laboratory tests have confirmed infection with the H5N1 avian influenza virus. Of the 170 cases confirmed to date in Indonesia, 141 have been fatal.

NATIONAL DISEASE REPORTS

LISTERIOSIS, FATAL (TEXAS): 21 Oct 2010, On 20 Oct 2010, the Texas Department of State Health Services (DSHS) announced that it had determined chopped celery was the source of a *Listeria* food poisoning outbreak among Texas residents. Texas DSHS had been investigating the source of 10 cases of listeriosis -- the illness caused by the ingestion of *Listeria* [*monocytogenes*] bacteria, 5 of which resulted in death -- for 8 months when investigators determined that the source of the outbreak was chopped celery sold by Sangar Fresh Cut Produce in San Antonio. Six of the 10 cases have been conclusively linked to consumption of the chopped celery. According to a health department press release, all cases of *Listeria* food poisoning occurred in Bexar, Travis and Hidalgo counties. All of the reported cases were in people with serious underlying health problems. Several segments of the population are at increased risk for contracting listeriosis. Individuals at increased risk include: Pregnant women, who are about 20 times more likely than other healthy adults to get listeriosis (about 1/3rd of listeriosis cases happen during pregnancy); Newborns, who, rather than the pregnant women themselves, suffer the serious effects of infection in pregnancy; Persons with weakened immune systems, [such as] persons with cancer, diabetes, kidney disease, or AIDS (who are almost 300 times more likely to get listeriosis than people with normal immune systems); Persons who take glucocorticosteroid medications (such as cortisone); and the elderly. Texas DSHS ordered the celery manufacturer, Sangar Fresh Cut Produce in San Antonio, to stop processing food and recall all products shipped from the plant since January 2010 after lab testing of chopped celery from the plant indicated the presence of *Listeria*. According to a press release issued by Texas DSHS, conditions in the food processing plant posed "an immediate and serious threat to human life or health." Sangar Fresh Cut Produce recalled products include primarily cut fresh produce in sealed packages, which were distributed to restaurants and institutional facilities such as hospitals and schools. The chopped celery and other products are not believed to have been sold in grocery stores. Texas DSHS inspectors reported that they found sanitation issues at the plant during the *Listeria* outbreak investigation and believe the *Listeria* bacteria found in the chopped celery may have contaminated other food manufactured in the facility. The agency stated in a press release that a condensation leak had been found above the food product area during an inspection. Inspectors also found soil on a food preparation table and identified handwashing issues. All of these factors could have contributed to the spread of *Listeria* throughout the food manufacturing plant where celery was chopped and packaged. Texas DSHS food safety personnel are continuing their investigation into the possible points within the facility where the celery became contaminated with *Listeria* and is contacting distributors, restaurants and institutions believed to have received the recalled products to ensure the celery and other products sold by Sangar Fresh Cut Produce does not reach consumers. The order issued by Texas DSHS prohibits the plant from reopening without DSHS approval. The incubation period (time between ingestion and the onset of symptoms) for listeriosis ranges from 3 to 70 days and averages 21 days. A person with listeriosis may develop fever, muscle aches, and sometimes, gastrointestinal symptoms such as nausea or diarrhea. If infection spreads to the nervous system, symptoms such as headache, stiff neck, confusion, loss of balance, or convulsions can occur. In immune-deficient individuals, *Listeria* can invade the central nervous system, causing meningitis and/or encephalitis (brain infection). Infected pregnant women ordinarily experience only a mild, flu-like illness; however, infection during pregnancy can lead to miscarriage, infection of the newborn or even stillbirth. Newborns may present clinically with early-onset (less than 7 days) or late-onset forms of infection (7 or more days). Those with the early-onset form are often diagnosed in the 1st 24 hours of life with sepsis (infection in the blood). Early-onset listeriosis is most often acquired from the mother through transplacental transmission. Late-onset neonatal listeriosis is less common than the early-onset form. Clinical symptoms may be subtle and include irritability, fever and poor feeding. The mode of acquisition of late-onset listeriosis is poorly understood. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ST. LOUIS ENCEPHALITIS (TEXAS): 21 Oct 2010, A Nueces County [Texas] man thought to have West Nile virus actually had a much more rare mosquito-borne illness, St. Louis encephalitis. The man, who has since recovered, is the 2nd person in the state this year to contract the illness, which can cause brain inflammation, said Chris Van Deusen, spokesman for the Texas Department of State Health Services. Since 1990, 74 people in Texas have tested positive for St. Louis encephalitis, according to state health department records. In comparison, 758 people in the state have contracted West Nile virus since 2003, the year after it was first detected in Texas. Unlike West Nile virus, St. Louis encephalitis comes in spurts, and most years, there are no cases of the mosquito-borne disease found in humans, according to state records. The last Texas death from the virus was in 1995, Van Deusen said. The Nueces County man, in his 60s, was hospitalized in late September [2009] and the state confirmed he had West Nile virus. That test was a false positive, and state officials later confirmed with a 2nd test that the man had St. Louis encephalitis. The Corpus Christi-Nueces County Public Health District won't release further details about the man because of privacy concerns. Health officials said there is a 2nd case of St. Louis encephalitis in a Nueces County resident, but that case is pending confirmation from the state laboratory. Dr William Burgin, local health authority, did not have more information about the patient's condition, and the state declined to release information until the case is confirmed. Since testing began on 3 May [2010], 6 pools of mosquitoes have tested positive for St. Louis encephalitis, but West Nile virus has not been found in Nueces County mosquitoes this year. "With cooler temperatures, mosquito activity will begin to taper off," Burgin said "Residents should continue to use preventive measures

to help lower their risk." More people die each year from West Nile virus than St. Louis encephalitis because West Nile is more common, Van Deusen said. This year, 5 people in Texas have died from West Nile. However, West Nile virus rarely causes symptoms in infected people, and 80 percent of those who contract the illness don't feel sick, according to the Centers for Disease Control and Prevention. Many people infected with St. Louis encephalitis [virus] also don't experience symptoms, but the mortality rate from that disease can range from 5-30 percent, with higher rates among elderly people. There are no treatments for these illness, but doctors often provide relief for symptoms, which can include headache, fever, and nausea, Van Deusen said. Most people recover with rest, he said. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

HEPATITIS E, FOODBORNE (ENGLAND): 23 Oct 2010, A rare [type] of the liver disease, hepatitis E, has killed 3 people in Cornwall and caused at least 55 more across the UK to fall ill. Hepatitis E is generally thought to be caused by poor sanitary conditions and previously it had been assumed that British sufferers had caught the disease abroad. But Dr Harry Dalton, a consultant gastroenterologist at Royal Cornwall Hospital Trust, said the recent patients he had seen did not fit the usual criteria. He said: "Not only had the patients not travelled abroad but they didn't fit the normal age range for the virus. "In other parts of the world it usually affects the young. However in the cases being seen in the UK, it is the middle aged and elderly, particularly men." He believes that the main cause is contact with raw pork and is now researching the link. Patients with liver problems admitted to hospital will be checked to see if the problems had been caused by hepatitis E [virus infection]. However a spokesman for the Health Protection Agency (HPA) said: "The South West Peninsula HPA previously worked with Dr. Harry Dalton, Royal Cornwall Hospital Trust to investigate a number of hepatitis E cases from Dec 2009 to March 2010 in the Cornwall area. The team concluded that there was no epidemiological link between the cases or an associated link with eating or handling pork. Although we are aware of a number of hepatitis E cases in the UK the majority are acquired outside the UK or related to travel to endemic countries." It is acknowledged that pigs and pork can harbor [hepatitis E virus] and that this may be the cause of the disease in cases where there has not been any foreign travel, according to the HPA website. Dr. Dalton said those with existing liver conditions are most at risk and advised people to take care when preparing pork. He added: "The message is not to not eat pork, but to simply make sure it is cooked properly and that hands are washed thoroughly after handling it raw." Dr. Dalton believes hepatitis E could be affecting as many as 1200 people in the UK every year. He said: "Victims become jaundiced and this has resulted in patients being misdiagnosed as suffering [from] alcohol abuse. Dr. Dalton said there have been 3 deaths related to hepatitis E infection over the last 7 years and around 60 cases of hepatitis E in Cornwall and Devon between 1999-2010, the vast majority of whom have been seen since 2005. One victim of the disease, a 59-year-old man, contracted hepatitis E and died in July 2006. His 63-year-old wife, from Newquay in Cornwall, said he started feeling ill while he was working at a factory next door to a pig farm. Medics have told the family it is unclear whether he caught the virus because of exposure to the pig farm or through consuming infected pork. The HPA website said there were 178 cases of hepatitis E in Britain in 2008 and 179 in 2009. Most people clear the infection without treatment, however people with weakened immune systems or liver disease may need closer observation, it said. There is no vaccine against hepatitis E [virus infection]. In 2008, 4 people in Britain fell ill with the virus after a world cruise. Infected shellfish were found to be the cause. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (GEORGIA): 19 Oct 2010, There were 22 human anthrax cases in Georgia during this year [2010]. According to the news agency "Rosbalt" the latest anthrax case was registered a day before and only a week ago [week of 4-8 Oct 2010] a patient died from anthrax. However, the specialists consider that there is no ongoing epidemic and there are sporadic cases only. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

LISSA FEVER, (SIERRA LEONE): 17 Oct 2010, The following is recent information on Lassa fever in Sierra Leone: 1) The index case was a 17 year old pregnant woman who delivered at 28 weeks gestational age. Both she and the baby (not a 6 year old) died. Although she and her family occasionally caught and consumed rodents, there is no history of her running a "rat meat restaurant". 2) In all, there were 35 identified contacts of this woman and child, but only 4 developed Lassa fever. All had direct contact with the index case or secondary cases, and all 4 survived. We have not identified any more cases, and, since the time from the last known contact of any of the confirmed cases has now exceeded the 3-week maximum incubation period for Lassa fever, we do not anticipate more cases related to this particular chain of transmission. 3) Whether "the disease has migrated from the forest region of the east to the savannah grasslands of the north" is a very open question. The index case denied travel to the known endemic area in the east, but it is always possible that the infection resulted from unrecognized contact from an infected person coming from the east to her village in Bombali District. Our zoology team is presently trapping rodents in the home and village of the index case. Identification of Lassa virus-positive *Mastomys natalensis* would confirm the notion that the endemic area has expanded. However, it should be noted that suspected cases of Lassa fever have been reported from this area before, but laboratory facilities were not available at the time to confirm them. 4) There has indeed been a significant increase in reported cases of Lassa fever in Sierra Leone over the last 9 months or so. However, this observation largely coincides with the implementation of Sierra Leone's new policy of providing free care to children under 5 and pregnant and lactating mothers. The numbers of patients seen in hospitals and health clinics sky-rocketed, driving upward the perceived incidence of virtually every disease that affects these groups, including Lassa fever. Whether the observed increase in cases of Lassa fever is purely reflective of the change in policy or also has concomitant biological determinants is unknown. It should also be noted that, for reasons unknown, there is significant seasonal and yearly fluctuation in the incidence of Lassa fever. (Viral Hemorrhagic Fever is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmh.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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